Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the Application:

Listing of Claims:

1.   (Previously Presented) A communications system, comprising:

a plurality of transceiver nodes configured to utilize a time division multiple access structure to communicate between the plurality of transceiver nodes, each transceiver node generating congestion metric information based on the utilization of a link to each of its neighbors;

a route management module configured to combine the congestion metric information generated by the plurality of transceiver nodes into a congestion report;

the route management module configured to combine routing information for each transceiver node and the congestion report into a plurality of node routing and congestion reports, the route management module is configured to transmit one of the plurality of node routing and congestion reports to each transceiver node based on the routing information;

the time division multiple access structure including a plurality of time slots during which the plurality of transceiver nodes are configured to communicate data cells, the data cells being transmitted from a transmission queue, the data cells including routing information and the congestion metric information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link, a monitoring signal of a processor buffer availability, and a monitoring signal of priority queues capacity.

2.   (Original) The communication system of claim 1, wherein the congestion metric information is generated by a channel access subsystem.

3.   (Previously Presented) The communication system of claim 1, wherein the cell counts are transmitted in unicast and broadcast allocated slots.

4-6.   (Cancelled)

7.   (Previously Presented) The communication system of claim 1, wherein the congestion metric information is further based on the availability of unallocated slots.

8.   (Previously Presented) A method of propagating congestion information in a transmission system, the transmission system comprising transceiver nodes, comprising:

measuring by the transceiver node, the utilization of each of the links to each of its neighbors;

generating congestion metric information based on the link utilization;

combining the congestion metric information with routing information;

transmitting the congestion metric information and routing information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link, a monitoring signal of a processor buffer availability, and a monitoring signal of priority queues capacity.

9.   (Original) The method of claim 8, wherein the congestion metric information is provided as one of a predetermined number of states.

10.   (Previously Presented) The method of claim 9, wherein the predetermined number of states is four.

11.   (Previously Presented) The method of claim 8, wherein a route management subsystem disseminates the congestion metric information.

12.   (Previously Presented) The method of claim 8, wherein a flow control subsystem of a second transceiver node may utilize the congestion metric information when received by the second transceiver node.

13.   (Previously Presented) The method of claim 8, wherein the congestion metric information and routing information is transmitted by a route management subsystem.

14. (Previously Presented) The method of claim 8, wherein the congestion metric information is generated by a channel access subsystem.

15. (Previously Presented) The method of claim 8, wherein the transmission system is a time division multiple access system.

16. (Previously Presented) A radio transceiver propagating congestion information in a radio network system, the radio network system comprising radio transceiver nodes, comprising:

a means for measuring by the transceiver node, the utilization of each of the links to each of its neighbors;

a means for generating congestion metric information based on the link utilization;

a means for combining the congestion metric information with routing information;

a means for transmitting the congestion metric information and routing information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link, a monitoring signal of a processor buffer availability, and a monitoring signal of priority queues capacity.

17. (Original) The radio transceiver of claim 16, wherein the congestion metric information is provided as one of a predetermined number of states.

18. (Previously Presented) The radio transceiver of claim 17, wherein the predetermined number of states is four.

19. (Previously Presented) The radio transceiver of claim 16, wherein a route management subsystem disseminates the congestion metric information.

20.   (Previously Presented) The radio transceiver of claim 16, wherein a flow control subsystem of a second transceiver node may utilize the congestion metric information when received by the second transceiver node.

21.   (Previously Presented) The radio transceiver of claim 16, wherein the congestion metric information is generated by a channel access subsystem.

22.   (Previously Presented) The radio transceiver of claim 16, wherein the radio network system is a time division multiple access system.